

تکلیف شماره ۱۹

پارمیس نیژاده، دوازدهم دفتر B

$$x \rightarrow (-2)^+ \quad f(-2) = 2x[2^-] + a(0) = 2 \quad (1)$$

$$x \rightarrow (-2)^- \quad f(-2) = 2x[2^+] + a(-1) = 4 - a$$

$$2 = 4 - a \Rightarrow a = 2 \quad \left[\frac{a}{2}\right] = \left[\frac{2}{2}\right] = 0$$

$$\lim_{x \rightarrow (\frac{\pi}{4})^-} [2 \sin x - 1] \Rightarrow x < \frac{\pi}{4} \Rightarrow \sin x < \frac{1}{2} \quad (2)$$

$$\lim_{x \rightarrow (\frac{\pi}{4})^-} [2 \sin x - 1] = [1^- - 1] = [0^-] = (-1)$$

$$\lim_{x \rightarrow -\frac{1}{4}} [12x^2 - x] = [-1 + \frac{1}{4}] = [-\frac{1}{4}] = (-1)(2)$$

چون عدد داخل براکت جزو Z نیست نیازی به تطبیق نیست

$$\lim_{x \rightarrow (-\frac{1}{4})^-} \frac{10x - 8 + [\frac{2}{x^2}]}{14x - [-\frac{2}{x^2}]} = \frac{10x - 8 + 11}{14x + 1} = \frac{1}{0^-} = -\infty \quad (3)$$

$$x < -\frac{1}{4} \Rightarrow x^2 > \frac{1}{4} \Rightarrow \frac{1}{x^2} < 4$$

$$\lim_{x \rightarrow 1^+} \frac{\sin^2 \pi x}{1 + \cos \pi x} \times \frac{1 - \cos \pi x}{1 - \cos \pi x} = \frac{\sin^2 \pi x \times (1 - \cos \pi x)}{\sin^2 \pi x} \quad (4)$$

$$= \frac{1 - \cos \pi x}{1 - \cos \pi x} = 1 - (-1) = 2$$

$$\lim_{n \rightarrow -1} \frac{\sqrt{2n+5} - \sqrt{2n+3}}{1 + \sqrt{n}} \times \frac{\text{مخرج}}{\text{مخرج}} \times \frac{\text{فيد}}{\text{فيد}} \quad (4)$$

$$= \frac{((2n+5) - (2n+3)) (1 + \sqrt{n^2} - \sqrt{n})}{(1) (n+1)}$$

$$\frac{(-n-1) \times (1)}{1 \times (n+1)} = -\frac{1}{1}$$

$$\lim_{n \rightarrow 1} \frac{2(n - 1, \delta \sqrt{n} + 1, \delta)}{2n - \sqrt{5n+1}} = \frac{2(\sqrt{n} - 1, \delta)(\sqrt{n} - 1)}{2n - \sqrt{5n+1}} \quad (5)$$

$$\times \frac{\text{مخرج}}{\text{مخرج}} = \frac{2(\sqrt{n} - 1, \delta)(\sqrt{n} - 1) \times \cancel{\delta}}{\cancel{\delta}(n-1)(n + \frac{1}{\delta})} = \frac{2 \times (\sqrt{n} - 1, \delta)}{(\sqrt{n+1})(n + \frac{1}{\delta})}$$

$$\frac{-1, \delta \times \cancel{\delta}}{1 \times \frac{\delta}{\delta}} = \frac{-\frac{1}{\delta}}{\frac{\delta}{\delta}} = \frac{-1}{\delta} = -1, \delta$$

$$\lim_{n \rightarrow 0} \frac{a + \sqrt{bn+c}}{n} = \frac{1}{\delta} \quad (1)$$

$$\text{مخرج} = 0 \Rightarrow \text{مخرج} = 0 \quad a + \sqrt{c} = 0 \quad a = -\sqrt{c}$$

$$\text{هنا} \rightarrow \frac{b}{x \sqrt{bn+c}} = \frac{1}{\delta} \quad \text{و } b = \sqrt{bn+c} \xrightarrow{n=0} b = \sqrt{c}$$

$$\frac{-ab}{c} = \frac{(-\sqrt{c}) \times (\frac{1}{\delta} \sqrt{c})}{c} = -\frac{1}{\delta}$$

$$n \rightarrow -2\pi^+ \quad \frac{\varepsilon - 2k}{0^-} = +\infty \Rightarrow \varepsilon - 2k < 0 \quad k > \frac{\varepsilon}{2} \quad (9)$$

$$n \rightarrow -2\pi^- \quad \frac{\varepsilon - 2k}{0^+} = +\infty \Rightarrow \varepsilon - 2k > 0 \quad k < \frac{\varepsilon}{2}$$

$$K = (\frac{\varepsilon}{2}, 2) \quad [-K] = -2$$

$$\Delta = 0 \Rightarrow \text{حد خارج} = 0$$

$$1a - b = 0$$

$$1a = b \quad (10)$$

$$1a (\sqrt{2 + \sqrt{n}} - 2)$$

$$\sqrt[n]{n} = t = 2$$

$$\cancel{a(n-1)}$$

$$1 (\sqrt{2+t} - 2)$$

نزدوج ص

$$1 (\overbrace{t+2}^{t-2} - \epsilon)$$

$$t^2 - 1$$

سردوج ص

$$\epsilon \times (t-2)(t^2 + \epsilon + 2t)$$

$$= \frac{1}{\epsilon \times 4}$$

$$\epsilon \times 4$$